

DELTA-SIGMA ANALOG-TO-DIGITAL CONVERTER

ABSTRACT

Systems and methods are provided for providing feedback to a delta-sigma analog-to-digital converter assembly. A noise shaper preprocesses an analog input signal according to an analog feedback signal and an associated transfer function. A quantizer converts the preprocessed analog input signal into a digital output signal. A delta-sigma modulator shapes noise within a sample of the digital output signal. A digital-to-analog converter converts the shaped digital signal into an analog signal to provide the analog feedback signal.